

Appl. No. 10/723,006
Amdt. dated October 10, 2006
Reply to Office Action of July 13, 2006

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A controller of a vehicle having an engine for use with an authorized key having a communication function, the vehicle including a passenger compartment, a door, and a key receiver arranged in the passenger compartment to receive the authorized key, the controller comprising:

a microcomputer for controlling the engine, the microcomputer being capable of communicating with the authorized key;

a recognizer activated when predetermined conditions, including establishment of communication between the microcomputer and the authorized key, are satisfied to verify whether a vehicle occupant is an authorized user, the microcomputer enabling the starting of the engine when communication is established with the authorized key and the recognizer verifies the vehicle occupant as being the authorized user;

wherein the microcomputer transmits a request signal to a predetermined first area defined around the vehicle, and the authorized key outputs a response signal in response to the request signal, the microcomputer unlocking the door when receiving the response signal and entering a regular mode to activate the recognizer when the door is opened, the microcomputer entering an irregular mode to keep the recognizer inactivated when the door is unlocked even though the response signal is not received, and the microcomputer activates the recognizer in the irregular mode when communication is established with the authorized key received in the key receiver.

2. (Canceled)

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3. (Currently Amended) The controller according to claim 1 ~~[[2]]~~, wherein the microcomputer transmits the request signal to a predetermined second area defined in the passenger compartment after the door is opened in the regular mode, and the microcomputer activates the recognizer when receiving the response signal from the authorized key in response to the request signal.

4. (Original) The controller according to claim 1, wherein the recognizer detects a distinctive feature of the vehicle occupant to verify that the vehicle occupant is the authorized user.

5. (Original) The controller according to claim 1, wherein the recognizer images the vehicle occupant to generate image data and compares the image data with reference image data that is registered beforehand.

6. (Currently Amended) A method for controlling a vehicle having an engine and a door, the method comprising:

transmitting a request signal to a predetermined area defined around the vehicle;
unlocking the door when receiving a response signal in response to the request signal;
verifying whether a vehicle occupant is an authorized user; and
enabling starting of the engine when the vehicle occupant is verified as the authorized user;

wherein said verifying is performed after the response signal is received and the door is opened, but is not performed unless a predetermined condition is satisfied when the door is unlocked even though the response signal is not received, and wherein the predetermined condition includes establishment of transponder communication with an authorized key located in a key receiver that is arranged in the passenger compartment.

7. (Original) The method according to claim 6, wherein said verifying includes detecting a distinctive feature of the vehicle occupant and comparing the detected distinctive feature with reference data that is registered beforehand.

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8. (Original) The method according to claim 6, wherein said verifying includes imaging the vehicle occupant to generate image data and comparing the image data with reference image data that is registered beforehand.

9-12. (Canceled)